REMARKS

Initially, Applicants wish to thank the Examiner for the careful consideration given this case. The above amendments to the claims and the following remarks address those issues raised by the Examiner in the Office Action of November 6, 2002. Each of the above amendments finds ample support throughout the specification and introduces no new matter into the present prosecution. In light of these amendments and remarks, it is submitted that all pending claims are allowable, and timely notice to such effect is respectfully requested.

Initially, the Examiner rejected Claims 1-4, 7-10, 12, 18 and 20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,175,150 to Ichikawa et al. ("Ichikawa"). Although Applicants do not believe that Ichikawa discloses and teaches each and every element of the above-rejected claims, Applicants are replacing independent Claim 1 with new independent Claim 21. This amendment distinguishes the present claims from the teaching of Ichikawa, and renders each and every claim presently allowable.

Specifically, according to the new Claims 21 and 22 and the present invention, each of the hang leads has a top surface, a bottom surface, two side surfaces, and two end surfaces, and comprises three areas: a first area wherein all of said top surface, bottom surface, and two side surfaces are covered by (enclosed by or encapsulated by) said resin encapsulated body, a second area wherein said top surface is covered by said resin encapsulated body and said bottom surface and said two side surfaces are exposed from (i.e., not covered by or encapsulated in) said resin encapsulated body, and a third area wherein said top surface, bottom surface, two side surfaces, and two end surfaces are exposed from (i.e., not covered by or encapsulated in) said resin encapsulated body. This structure is not found in Ichikawa (e.g., the second area is not shown or described in Ichikawa) or any other reference identified by the Examiner.

This lead orientation is advantageous for a variety of reasons. For example, the second and third areas allow for an increase in the solder wetted surface area of the semiconductor device when the device is mounted on a printed circuit board. As a result, it is possible to obtain Chip Size Package (CSP) having increased strength at the time of mounting (e.g., the ratio of strength to the heat stress at the time of mounting is increased). Further,

because the second area of the lead is covered by the resin at the top surface, it is possible to obtain a CSP wherein the surface of the lead is protected and the slip off of the lead is minimized or prevented. Ichikawa does not teach these lead structures and orientations, and the device described in Ichikawa can not obtained the above-described improved results.

The present amendments and remarks fully address all of the issues raised by the Examiner in the Office Action mailed on November 6, 2002. In view of the amendments and remarks included herein, it is respectfully submitted that the present application is in condition for final allowance and notice to such effect is respectfully requested. Each of these amendments finds ample support throughout the specification and at least FIGS. 1-9. If the Examiner believes that additional issues need to be resolved before this application can be passed to issue, the undersigned invites the Examiner to contact him at the telephone number provided below.

Respectfully submitted,

Stanley P. Fisher
Registration Number 24,344

Juan Carlos ~~A.~~ Marquez
Registration Number 34,072

REED SMITH LLP
3110 Fairview Park Drive, Suite 1400
Falls Church, Virginia 22042
(703) 641-4200
February 6, 2003

AMENDMENTS TO THE CLAIMS

Please cancel Claims 1, 2, 4, 8, 10-12, 18 and 20 without prejudice.

3. (Amended) The semiconductor device of Claim 21, wherein said second surface has a smaller area than said first surface.

7. (Original) The semiconductor device of Claim 3, wherein there are two hand leads.

9. (Amended) The semiconductor device of Claim 21, wherein the resin encapsulated body contains a tab sealed therein.

21. (Added) A semiconductor device, comprising:

a plurality of leads having a top surface, a bottom surface, two side surfaces, and two end surfaces, said leads having a square cross section shape perpendicular to the longitudinal direction of the leads;

a resin encapsulated body having a first surface, a second surface opposite said first surface, and four side surfaces through which said leads project,

each of said leads comprises a first area wherein all of said top surface, bottom surface, and two side surfaces are covered by said resin encapsulated body, a second area wherein said top surface is covered by said resin encapsulated body and said bottom surface and said two side surfaces are exposed from said resin encapsulated body, and a third area wherein said top surface, bottom surface, two side surfaces, and two end surfaces are exposed from said resin encapsulated body.

22. (Added) A semiconductor device according to Claim 3, wherein each of said hang leads has a top surface, a bottom surface, two side surfaces, and two end surfaces, and comprises a first area wherein all of said top surface, bottom surface, and two side surfaces are covered by said resin encapsulated body, a second area wherein said top surface is covered by said resin encapsulated body and said bottom surface and said two side surfaces are exposed from said resin encapsulated body, and a third area wherein said top surface, bottom surface, two side surfaces, and two end surfaces are exposed from said resin encapsulated body.